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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,191	01/29/2001	Richard L. Sites	07844-437001	7294

21876 7590 04/28/2005

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EXAMINER	
VO, HUYEN X	

ART UNIT	PAPER NUMBER
2655	

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/774,191	SITES, RICHARD L.	
	Examiner	Art Unit	
	Huyen Vo	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 January 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection necessitated by amendment.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4-6, 15-16, 18-20, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (US 5465309).

4. Regarding claims 1 and 18, Johnson discloses a computer program product and method, stored on a machine-readable medium, comprising instructions operable to cause a programmable processor to: search a document for one or more words that are ambiguous because they contain one or more ambiguous typesetting placeholder (*col. 4, line 20 to col. 5, line 67, particularly example and table in column 5, unrecognized/unidentified characters are marked with non-printable characters for subsequent processing*); and to use a dictionary to resolve the one or more ambiguous words by resolving the one or more ambiguous typesetting placeholders occurring in each ambiguous word (*col. 6, lines 1 to col. 8, line 59*).

5. Regarding claims 4 and 19, Johnson further discloses that the computer program product of claim 1 wherein the instruction to use the dictionary to resolve the one or more ambiguous words by resolving one or more ambiguous typesetting placeholders in each ambiguous word comprises instructions operable to cause a programmable processor to: create a set of candidate solutions for each ambiguous word (*EXAMPLE OUTPUT STREAM in col. 5 and/or tables in col. 7-8*), wherein each solution in the set of candidate solutions comprises one or more character strings created by uniquely resolving the one or more ambiguous typesetting placeholders in the ambiguous word (*tables in col. 7-8*); search the dictionary for the one or more character strings in each solution (*col. 6, lines 47-67, comparing with dictionary*); and use the dictionary search result to resolve the one or more ambiguous typesetting placeholders in each ambiguous word (*col. 6, lines 1 to col. 8, line 59*).

6. Regarding claims 5-6, 15-16, 20, and 26, Johnson further discloses that the computer program product, wherein the instruction to create a set of candidate solutions for an ambiguous word having N binary-resolvable typesetting placeholder ambiguities, comprises instructions to create a set of 2^N candidate solutions (*tables in col. 7-8*), wherein the instruction to use the dictionary search result to resolve the one or more ambiguous typesetting placeholders in the ambiguous word, further comprises instructions to resolve the one or more ambiguous typesetting placeholders in conformity with one member of the set of candidate solutions when the dictionary

search matches only that member of the set of candidate solutions (*col. 6, lines 1 to col. 8, line 59*), and ambiguous typesetting placeholders comprise space between characters resolvable as blank space or kerning space (*col. 6, lines 1 to col. 8, line 59*), and instructions operable to cause a programmable processor to add space to an ambiguous white space resolved to be blank space and to remove space from an ambiguous white space resolved to be kerning space (*col. 6, lines 1 to col. 8, line 59*).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 7-8, 17, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 5465309) in view of Goldberg (US 6205261).

9. Regarding claim 17, Johnson discloses a computer program product, stored on a machine-readable medium, comprising instructions operable to cause a programmable processor to: search a document for a word that are ambiguous because it contains an ambiguous typesetting placeholder (*col. 4, line 20 to col. 5, line 67, particularly example and table in column 5, unrecognized/unidentified characters are marked with non-printable characters for subsequent processing*); create a set of candidate solutions for

each ambiguous word (*EXAMPLE OUTPUT STREAM in col. 5 and/or tables in col. 7-8*), wherein each solution in the set of candidate solutions comprises one or more character strings created by uniquely resolving the one or more ambiguous typesetting placeholders in the ambiguous word (*tables in col. 7-8*); search the dictionary for the one or more character strings in each solution (*col. 6, lines 47-67, comparing with dictionary*); and, based on the dictionary search results, to: resolve the one or more ambiguous typesetting placeholders in conformity with a member of the set of candidate solution (*col. 6, lines 1 to col. 8, line 59*).

Johnson fails to specifically disclose the step of prompting a user to manually resolve the one or more ambiguous typesetting placeholders when the dictionary search fails to match any member of the set of candidate solutions; or prompt a user to manually resolve the one or more ambiguous typesetting placeholders when the dictionary search matches a plurality of members of the set of candidate solutions. However, Goldberg teaches the step of prompting a user to manually resolve the one or more ambiguous typesetting placeholders when the dictionary search fails to match any member of the set of candidate solutions (*col. 16, lines 1-16, list of reference words may not contain target words*).

Since Johnson and Goldberg are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Johnson by incorporating the teaching of Goldberg in order to improve system's efficiency.

10. Regarding claims 7-8 and 21-22, Johnson fails to specifically disclose a computer program product, wherein the instruction to use the dictionary search result to resolve the one or more ambiguous typesetting placeholders in the ambiguous word, further comprises instructions to prompt a user to manually resolve the one or more ambiguous typesetting placeholders in the ambiguous word when the dictionary search fails to match any member of the set of candidate solutions, and when the dictionary search matches a plurality of members of the set of candidate solutions.

However, Goldberg teaches instruction to use the dictionary search result to resolve the one or more ambiguous typesetting placeholders in the ambiguous word, further comprises instructions to prompt a user to manually resolve the one or more ambiguous typesetting placeholders in the ambiguous word when the dictionary search fails to match any member of the set of candidate solutions, and when the dictionary search matches a plurality of members of the set of candidate solutions (*col. 16, lines 1-16, list of reference words contains target words*).

Since Johnson and Goldberg are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Johnson by incorporating the teaching of Goldberg in order to enable user's selection of correct words from a list of candidate words to produce correct result.

11. Claims 9-12 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 5465309) in view of Huang et al. (US 5829000).

12. Regarding claims 9-12 and 23-24, Johnson fails to specifically disclose that the instruction to use the dictionary search result to resolve the one or more ambiguous typesetting placeholders in the ambiguous word, further comprises instructions to resolve the one or more ambiguous typesetting placeholders in conformity with a member of the set of candidate solutions having the largest, fewest, smallest and/or most words when the dictionary search matches a plurality of members of the set of candidate solutions.

However, Huang et al. teach that the instruction to use the dictionary search result to resolve the one or more ambiguous typesetting placeholders in the ambiguous word, further comprises instructions to resolve the one or more ambiguous typesetting placeholders in conformity with a member of the set of candidate solutions having the largest, fewest, smallest and/or most words when the dictionary search matches a plurality of members of the set of candidate solutions (*col. 6, lines 1-67, largest, fewest, smallest, or most words can be selected depending the user*).

Since Johnson and Huang et al. are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Johnson by incorporating the teaching of Huang et al. in order to correct misrecognized words to improve system's accuracy.

13. Claims 13-14 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 5465309) in view of Cason et al. (US 4435778).

14. Regarding claim 13, Johnson fails to specifically disclose that the ambiguous typesetting placeholders comprise hyphens resolvable as hard hyphens or soft hyphens. However, Cason et al. teach that the ambiguous typesetting placeholders comprise hyphens resolvable as hard hyphens or soft hyphens (*col. 10, lines 49-64*).

Since Johnson and Cason et al. are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Johnson by incorporating the teaching of Cason et al. in order to resolve ambiguous characters to improve system's efficiency.

15. Regarding claims 14 and 25, Johnson further discloses instructions operable to cause a programmable processor to output the character code for the correct ambiguity resolution (*col. 6, lines 1 to col. 8, line 59*).

16. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 5465309) in view of Scrandall (US 5999949).

17. Regarding claim 27, Johnson further discloses the computer program of claim 1, further comprising instructions operable to cause a programmable processor to: identify one or more words in a document that are not ambiguous because they do not contain any ambiguous typesetting placeholders (*col. 4, lines 20-37, identify and separate recognized words from unrecognized words*). Johnson fails to specifically disclose the

step of automatically adding the one or more words that are not ambiguous to the dictionary. However, Scrandall teaches the step of automatically adding the one or more words that are not ambiguous to the dictionary (*col. 4, lines 43-60*).

Since Johnson and Scrandall are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Johnson by incorporating the teaching of Scrandall in order to identify and isolate ambiguous words from unambiguous words for corrections to improve system's efficiency.

18. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 5465309) in view of Scrandall (US 5999949), as applied to claim 27, and further in view of Froessl (US 5875263).

19. Regarding claims 2-3, the modified Johnson fails to specifically disclose instructions to automatically add the one or more non-ambiguous words to the dictionary comprises instructions to add the one or more non-ambiguous words to an initially empty dictionary, and wherein the instruction to automatically add the one or more non-ambiguous words to the dictionary comprises instructions to add the one or more non-ambiguous words to a dictionary containing one or more words located in one or more documents that have been previously processed by the computer program.

However, Froessl teaches that the instructions to automatically add the one or more non-ambiguous words to the dictionary comprises instructions to add the one or

more non-ambiguous words to an initially empty dictionary, and wherein the instruction to automatically add the one or more non-ambiguous words to the dictionary comprises instructions to add the one or more non-ambiguous words to a dictionary containing one or more words located in one or more documents that have been previously processed by the computer program (*col. 9, line 51 to col. 10, line 67*).

Since the modified Johnson and Froessl are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Johnson by incorporating the teaching of Froessl in order to improve accuracy in subsequent recognition.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen Vo whose telephone number is 703-305-8665. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HXV

April 18, 2005

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SUSAN MCFADDEN
PRIMARY EXAMINER